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10/035,154	01/04/2002	Makoto Nokita	03560.002974	1768

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EXAMINER

HO, ALLEN C

ART UNIT PAPER NUMBER

2882

DATE MAILED: 06/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/035,154

Applicant(s)

NOKITA, MAKOTO

Examiner

Allen C. Ho

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 11-14, 22 and 25-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 11-14, 22, 26, 30 and 33 is/are rejected.
- 7) ☒ Claim(s) 25, 27-29, 31 and 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griesmer *et al.* (U. S. Patent No. 5,379,335).

With regard to claim 1, Griesmer *et al.* disclosed an apparatus adapted for radiographing an object, comprising: a grid movement controller (26) adapted for controlling a movement of a grid (10); an input unit (24) adapted for inputting method information relating to a radiographic method (column 5, lines 56-62); and an imaging controller (26) adapted for determining a target speed (column 7, lines 11-16) of the grid to be used by the grid movement controller, based on the method information input by the input unit.

However, Griesmer *et al.* did not teach a display unit adapted for displaying information relating to an effective radiation exposure time range corresponding to the target speed.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a display unit, since it would provide a feedback and a confirmation on the chosen radiographic parameters to the user.

With regard to claim 2, Griesmer *et al.* disclosed the apparatus according to claim 1, further comprising a sensor unit (16) adapted for detecting a radiation image of the object.

With regard to claim 3, Griesmer *et al.* disclosed the apparatus according to claim 1, wherein the method information includes information relating to at least one of a section of the object to be radiographed and a radiation exposure time (column 5, lines 56-62).

With regard to claim 26, Griesmer *et al.* disclosed the apparatus according to claim 1, wherein the effective radiation exposure time range is determined based on a moving amount of the grid which moves at the target speed in one direction (*e. g.*, Figs. 3(a) and 3(b)).

3. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Griesmer *et al.* (U. S. Patent No. 5,379,335) as applied to claim 1 above, and further in view of Ammann *et al.* (U. S. Patent No. 4,803,716).

With regard to claim 11, Griesmer *et al.* disclosed the apparatus according to claim 1.

However, Griesmer *et al.* did not teach that the apparatus further comprising an exposure time acquisition unit for measuring or acquiring information relating to an actual radiation exposure time, wherein the target speed to be determined by the image controller is modified based on the information measured or acquired by the exposure time acquisition unit.

Ammann *et al.* disclosed a radiographic apparatus that comprises an exposure time acquisition unit (6) for measuring or acquiring information relating to an actual radiation exposure time (column 1, lines 54-55).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide an exposure time acquisition unit for measuring or acquiring information relating to an actual radiation exposure time, since a person would be motivated to set up a feedback circuit to calibrate the exposure time and the movement parameter to ensure the patient would not be exposed to prolonged radiation exposure.

4. Claims 12-14, 30, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griesmer *et al.* (U. S. Patent No. 5,379,335).

With regard to claim 12, Griesmer *et al.* disclosed a method adapted for radiographing an object, comprising the steps of: controlling (26) a movement of a grid; inputting (24) method information relating to a radiographic method (column 5, lines 56-62); and determining (26) a target speed (column 7, lines 11-16) of the grid to be used in the controlling step, based on the method information input in the inputting step.

However, Griesmer *et al.* did not teach displaying information relating to an effective radiation exposure time range corresponding to the target speed.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a display unit, since it would provide a feedback and a confirmation on the chosen radiographic parameters to the user.

With regard to claim 13, Griesmer *et al.* disclosed the method according to claim 12, further comprising a step of detecting (16) a radiation image of the object.

With regard to claim 14, Griesmer *et al.* disclosed the method according to claim 12, wherein the method information includes information relating to at least one of a section of the object to be radiographed and a radiation exposure time (column 5, lines 56-62).

With regard to claim 30, Griesmer *et al.* disclosed the method according to claim 12, wherein the effective radiation exposure time range is determined based on a moving amount of the grid which moves at the target speed in one direction (*e. g.*, Figs. 3(a) and 3(b)).

Art Unit: 2882

5. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Griesmer *et al.* (U. S. Patent No. 5,379,335) as applied to claim 12 above, and further in view of Ammann *et al.* (U. S. Patent No. 4,803,716).

With regard to claim 12, Griesmer *et al.* disclosed the method according to claim 12.

However, Griesmer *et al.* did not teach that the method further comprising a step of measuring or acquiring information relating to an actual radiation exposure time, wherein the target speed to be determined in the determining step is modified based on the information measured or acquired in the measuring or acquiring step.

Ammann *et al.* disclosed a radiographic method that comprises a step for measuring or acquiring information relating to an actual radiation exposure time (column 1, lines 54-55).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to measure or acquire information relating to an actual radiation exposure time, since a person would be motivated to set up a feedback circuit to calibrate the exposure time and the movement parameter to ensure the patient would not be exposed to prolonged radiation exposure.

Allowable Subject Matter

6. Claims 25, 27, 28, 29, 31, and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claims 25, 27, and 28, although the prior art discloses apparatuses adapted for radiographing an object comprising a display unit adapted for displaying information relating to an effective radiation exposure time range corresponding to the target speed, it fails to teach or fairly suggest that the display unit is adapted for displaying a standard relaxation exposure time within the effective radiation exposure time.

With regard to claims 29, 31, and 32, although the prior art discloses methods adapted for radiographing an object comprising the step of displaying information relating to an effective radiation exposure time range corresponding to the target speed, it fails to teach or fairly suggest displaying a standard radiation exposure time within the effective radiation exposure time range.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2882


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen C. Ho whose telephone number is (703) 308-6189. The examiner can normally be reached on Monday - Friday from 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached at (703) 305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0530.

Allen C. Ho
Examiner
Art Unit 2882

ACH
June 13, 2003


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